



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/828,459	04/21/2004	Yoshiaki Katou	088473-0166	4016
22428 7590 03/19/2007 FOLEY AND LARDNER LLP SUITE 500 3000 K STREET NW WASHINGTON, DC 20007			EXAMINER CHARLES, MARCUS	
			ART UNIT 3682	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		03/19/2007	PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/828,459

Applicant(s)

KATOU ET AL.

Examiner

Marcus Charles

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-9 and 14-15 is/are allowed.
- 6) ☐ Claim(s) 10-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4-21-2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

This is the first action relating to serial application number 10/828/459 filed 04-21-2004.

Claims 1-15 are currently pending.

#### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

#### **Drawings**

2. The examiner has accepted the drawing filed with this application as formal drawing.

#### ***Specification***

3. The disclosure is objected to because of the following informalities: In pages 16, 17, 21, the term "expression" should be equation. Note for example  $F_{zp} = P_p \cdot A_{sft} + P_{cl} \cdot A_{cl}$  and  $F_{zs} = P_s \cdot A_{sft} + P_{cl} \cdot A_{cl}$  are mathematical equations and not expressions.

In addition, the specification fails to clearly provide a clear description of fig. 9 so as to clearly define the terms X, Xp, Xs, Y, Ys and Yp in light of fig. 9. It is not clear what these terms represent.

In the expression  $P_p \cdot A_{sft} + P_{cl} \cdot A_{cl}$  and  $P_s \cdot A_{sft} + P_{cl} \cdot A_{cl}$ ,  $A_{sft}$  is defined as one of the primary and secondary cylinder chamber's applied pressure. Therefore, unless the terms  $A_{sft}$  for both the primary and secondary chambers are always equal to each other if they vary. They ( $A_{sft}$ ) should be expressed so as to identify the primary or

Art Unit: 3682

secondary chamber. An example could be  $Asft_p$  for the primary chamber and  $Asft_s$  for the secondary chamber. Note the same goes for the terms  $Pcl$  and  $Acl$  in the expression.

Furthermore, it is not clear as to if  $X$  and  $Y$  are constant for reasons given above. It appears  $X$ ,  $Y$ ,  $Asft$  and  $Pcl$  varies in relation to the primary and secondary chambers. Appropriate correction is required.

### ***Claim Objections***

4. Claims 10- 13 are objected to because of the following informalities: the term "expression" should be --equation--. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 11-13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification fails to clearly define the terms  $X$ ,  $X_p$ ,  $X_s$ ,  $Y$ ,  $Y_s$  and  $Y_p$  so as to enable one of ordinary skill in the art to understand the mathematical equation.

7. Claims 10-13 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 10-12, it is not clear if the terms X, Asft, Pcl and Acl are constant or varies because they are being used in two equations that may obtain different values. The terms depict values for different entity and it appears that for each entity the value may be different. Therefore, each term must be accompanied by an identifier so as to depict the entity they represent.

In addition, it is not clear as to what X, Xp, Xs, Y, Yp and Ys represent. The claims or specification are not clear as to what they depict or represent.

***Allowable Subject Matter***

8. Claims 1-9 and 14-15 are allowed.


***Citation***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hattori et al. (4,790,214; 5,211,083), Hayashi et al. (5,157,992), Eguchi et al. (6,379,278), Tominaga (6,086,513), GB (2,076,483), Tibbles et al. (5,514,047), EP (1176341), Yumoto et al. (5,183,439), JP (10-14155), Hagiwara et al. (6,695,742) and JP (2002-39352) disclose a CVT comprising primary and secondary pulleys that are being controlled by fluid in the pressure chambers.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marcus Charles whose telephone number is (571) 272-7101. The examiner can normally be reached on Monday-Thursday 7:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ridley Richard can be reached on (571) 272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Marcus Charles  
Primary Examiner  
Art Unit 3682  
March 15, 2007